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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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GROUP 3600

Applicants: Martin Zilliacus, et al.  
Serial No.: 09/511,237  
Filed: February 23, 2000  
For: SYSTEM AND METHOD OF SECURE PAYMENT AND  
DELIVERY OF GOODS AND SERVICES  
Group: 3621  
Examiner: Daniel L. Greene

**APPELLANTS BRIEF**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

June 24, 2004

Sir:

**I. REAL PARTY IN INTEREST**

The real party in interest is the Assignee, Nokia Corporation,  
Keilalahdentie 4, FIN-02150, Espoo, Finland.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals and/or interferences.

**III. STATUS OF CLAIMS**

Claims 1-60 and 115-174 are pending and are the subject matter of this  
appeal. Claims 61-114 have been cancelled.

#### **IV. STATUS OF AMENDMENTS**

No amendments have been filed after Final Rejection

#### **V. SUMMARY OF INVENTION**

The present invention is a method of ordering, paying for and delivering content. Preferred embodiments of the present invention are directed to business modules 1100, 1200, 1300, 1400 and 1500 as illustrated in Fig. 15 wherein different methodologies of ordering, paying for and delivering content are described. The business module 1100 of Fig. 15 is illustrated in Figs. 5 and 6; the business module 1200 is illustrated in Figs. 7 and 8; the business module 1300 is illustrated in Figs. 9 and 10; the business module 1400 is illustrated in Figs. 11 and 12; and the business module 1500 is illustrated in Figs. 12 and 13. The ordering and paying for the content by a user may be at a first location which may be a personal computer 40 with the content being selected from a content provider 30 with the content being transmitted to the user at a second location which may be a mobile station 10.

#### **VI. ISSUES**

- A. Is the Rejection of Claims 1-3, 12, 25-27, 37-39, 49-51, 60 and 115-174 as Being Unpatentable Under 35 U.S.C. §103 Over United States Patent 5,903,878 (Talati), United States Patent 5,815,665 (Teper et al) In View of United States Patent 6,401,085 (Gershman et al) Correct?
- B. Is the Rejection of Claims 4-11, 13-21, 24, 28-35, 40-47 and 52-59 As Being Unpatentable Under 35 U.S.C. §103 Over Talati et al, Teper et al, Gershman et al further In View of United States Patent 5,991,407 (Murto) Correct?

C. Is the Rejection of Claims 22, 23, 36 and 48 as Being Unpatentable Under 35 U.S.C. §103 Over Talati et al, Gershman et al, Teper et al, Murto and United States Patent 6,029,151 (Nikander) Correct?

## **VII. GROUPING OF THE CLAIMS**

The claims do not stand or fall as a group. The reasons that the individual claims are improperly rejected are set forth below.

## **VIII. ARGUMENT**

In summary, there is no demonstrable reason in the record why a person of ordinary skill in the art would be motivated to make the proposed combinations as suggested by the Examiner to arrive at the subject matter of the rejected claims if properly construed giving weight to all recited limitations. Moreover, even if the proposed combination were made, it is submitted that the subject matter of the rejected claims 1-60 and claims 115-175 would not be achieved.

### **A. Independent Claims 1, 13, 25, 37 and 49**

The rejection of the independent claims is discussed collectively. While the Examiner's statement of the rejection of the individual independent claims is not identical, it is considered that the Examiner is substantively relying on the same disclosure of the references therefore making a collective discussion appropriate.

All of the independent claims recite that the ordering of the content or contents occurs at a first location with delivery being at a second location. Independent claims 1, 13, and 49 recite that the content is selected from the content provider, whereas claims 25 and 37 recite selecting content from a network operator. The combination of architectural elements and their recited functionality including the above is not taught by the proposed combination of

United States Patent 5,903,878 (Talati et al), United States Patent 6,401,058 (Gershman et al) and United States Patent 5,815,665 (Teper et al) for the reasons set forth below.

Talati et al describe a method and apparatus for providing electronic commerce which involves purchase payment or request for an information document. Talati et al provides delivery utilizing a computer network such as the Internet, private intranet or any suitable network. In Talati et al there is no counterpart of the claimed operator of the network recited in the context of the independent claims. What is described in column 3, lines 49-59, which is the only delivery network of content disclosed in Talati et al, is general usage of a connecting communication network. There is no description of the functional interactions between the user, content provider, network operator and network as recited in the independent claims.

The claimed functions of the network operator in the independent claims involve interactions with the remainder of the system, including the content provider, which have no counterpart in the references relied upon by the Examiner. Claim 1 recites, "calculating a second service response value by a network operator when the user at a second location, different from the first location, requests the content from the network operator; verifying, by the network operator contacting the content provider, that the first service response value matches the second service response value; and transmitting the content to the user at the second location by the network operator when the first service response value matches the second service response value"; claim 13 recites, "transmitting the first service response value, the network identifier, and a random

number to a network operator by the content provider; calculating a second service response value and a cipher value by the network operator and determining if the first service response value matches the second service response value;" claim 25 recites, "transmitting a first service response value calculated by the user to the network operator; calculating a second service response value and a cipher key by the network operator and determining if the first service response value matches the second service response value"; claim 37 recites, "ordering the content ID, by a user at a first location, the content being selected from a network operator; transmitting a first service response value calculated by the user to the network operator; calculating a second service response value and a cipher key by the network operator and determining if the first service response value matches the second service response value; and transmitting the content to the user at a second location, different from the first location by the network operator when requested by the user" and claim 49 recites, "calculating a plurality of second service response values by a network operator when the user at a second location, different from the first location, requests one of the content from the network operator; verifying, by the network operator contacting the content provider, that one of the plurality of first service response values is associated with the requested contents matches one of the plurality of second service response values associated with the requested contents; and transmitting one of the requested contents to the user at a second location different from the first location, by the network operator when the one of the plurality of first service response values matches one of the plurality of second

service response values". It is submitted that the foregoing functions of the network operator are not found in Talati et al, Teper et al and Gershman et al.

It is noted that the Examiner cites column 6, lines 1-15, of Talati et al for a network operator. However, the aforementioned portion of column 6 refers to the functions performed by the system of Fig. 5 including a client 50, a merchant 55 and a credit authority 60. None of the entities of Fig. 5 alone or in combination are a counterpart of the claimed network operator and network including the functions thereof recited above from the independent claims.

The Examiner states as follows:

Talati '878 discloses the claimed invention except for the transmitting the content to the user by the network operator (Broker). Teper'665 teaches that it is known to transmit the content to the user by the network operator (Broker). It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit the content to the user by the network operator as taught by Teper'655, since Teper'665 demonstrates in Fig. 3 that such a modification allows users to purchase contents online without having to reveal personal information about themselves or their account numbers.

The Examiner's reliance upon Teper et al's broker as being a network operator is not a reasonable construction of the term "network operator" as understood by a person of ordinary skill in the art when the functions of the claimed network operator are considered as stated above.

As may be seen in the architecture diagram of Fig. 1 of Teper '655, user computers 40 are connected via the Internet to service provider computers 50 with payment being controlled by online broker site 60. The service broker site "provides billing and security services for registered Service Providers via an Online Brokering Service, eliminating the need for the Service Providers to handle such matters" which is not a description of a network operator as that term would

be understood by a person of ordinary skill in the art as recited above from the independent claims.

The online brokering service may provide additional services to the user which do not transform the broker site into a network operator which performs the claimed functions.

Furthermore, even if the online service broker 60 of Teper et al could be considered to be a network operator, it is submitted that the overall functionality between the content provider, the network operator, the network and the user as recited in the independent claims and as discussed above, is not disclosed in Teper et al.

Gershman et al disclose a mobile communication and computing system. The Examiner states that Gershman et al teaches that it is known in the art to provide the user at a first location receiving the content ordered at a second location. In the section entitled "Information Routing" in column 48 of Gershman et al there is described the delivery of information to where the users are likely to be located. However, the claims call for more specific subject matter than merely information routing to a second location. For example, claim 1 recites, "calculating a second service response value by a network operator when the user at a second location, different from the first location, requests the content from the network operator"; claim 13 recites, "transmitting the content to the user at a second location, different from the first location, when the first service response value matches the second service response value, by the content provider"; claim 25 recites, "transmitting the content to the user at a second location different from the first location by the content provider when requested by

the user"; claim 37, recites "transmitting the content to the user at a second location different from the first location by the network operator when requested by the user" and claim 49 recites, "transmitting one of the requested contents to the user at a second location different from the first location, by the network operator when the one of the plurality of first service response values matches the one of the plurality of second service response values". Each of the aforementioned portions of the independent claims requires far more than the delivery of content to the second location and involves interactions between the other elements of the claimed network architecture which Gershman et al do not fairly suggest.

It is submitted that a person of ordinary skill in the art would not be motivated to make the proposed combination of Talati et al, Teper et al and Gershman et al to achieve the claimed subject matter of the independent claim except by impermissible hindsight. It is noted that each of the systems disclosed in the prior art upon which the Examiner relies pertains to disparate aspects of electronic commerce which a person of ordinary skill in the art would not consider combining in the manner relied by the Examiner with none of the systems alone or in combination suggesting the claimed architecture and the related functionality. It is submitted that none of the references discloses the combination of a content provider, a network operator, the user, and a network including the claimed interactions. Accordingly, if the proposed combination was made, the subject matter of the independent claims would not be achieved. It is submitted that the Examiner is engaging in impermissible hindsight.



Claim 1 recites, inter alia, "transmitting a first service response value calculated by the user to the content provider; calculating a second service response value by a network operator of the user at a second location, different from the first location, requests the content from the network operator; verifying, by the network operator contacting a content provider, that the first service response value matches the second service response value". The Examiner cites column 3, lines 12-29, column 6, lines 1-15 and lines 61-68 through column 7, lines 1-24. However, what is described in column 3, lines 12-29, which the Examiner suggests describes the transmitting of a first service response value calculated by the user to the content provider, is only the details of the transaction which do not correspond to a first service response value.

The Examiner has not suggested what is the claimed first service response value calculated by the user. Moreover, what is described in column 6, lines 1-15, is specific to the embodiment of Fig. 5, but there is no discussion of a network operator contacting the content provider that the calculated first service response value matches the second calculated service response value.

What is described in the referenced portions of Talati is not a situation where first and second service response values are respectively calculated by the user and by a network operator respectively with verification occurring by the network operator contacting the content provider that the calculated first service response value matches the second calculated service response value. The two calculation steps are missing and furthermore what constitutes the contacting of the content provider which the Examiner possibly is suggesting is merchant 55 is not clear from the record.

The Examiner relies upon Teper et al as teaching "that it is known to transmit the content to the user by the network operator (Broker). Column 8, lines 26-67, through column 9, lines 1-23, describe the on-line broker as providing on-line brokering service for handling billing and security matters on behalf of the service providers (lines 37-40) and further, one or more databases for storing various account information with respect to the users and service providers with the information being described as password unique IDs access rights and bills (lines 56-59) and finally, user specific customization information can be used by the service providers to tailor their respective services to the individual users (lines 63-66). However, the described function of the broker does not involve the transmitting of the content which is provided by the service providers. At most, the brokers provide customization of the content which is different than the claimed transmission of the content to a user at a second location by the network operator when the first service response value matches the second service response value. In fact, the network operator would be construed by a person of ordinary skill in the art to be the service provider site 50 and not the brokering site 60.

Finally, Gershman has been cited as teaching that it is known in the art to provide a user at a first location receiving the content ordered at a second location. While Gershman et al describe in column 48 information routing, such routing is not specific with respect to the transmitting, calculating, verifying and transmitting steps of claim 1 which are far more specific.

It is submitted that a person of ordinary skill in the art would not make the proposed combination Talati et al, Teper et al and Gershman et al without impermissible hindsight.

Moreover, it is submitted that independent claims 13, 25, 37 and 48 are similarly not met by the proposed combination of Talati et al, Teper et al and Gershman et al.

B. Claims 2, 38 and 50

The above claims respectively limit independent claims 1, 37 and 49 in reciting that the first service response value is calculated by the user based on a random number supplied by the content provider. The Examiner's reliance upon column 3, lines 4-33, is misplaced in that lines 29-33 teach that "[t]his communication between the TA and the client may be encrypted using a suitable encryption method or a set of virtual keys known only to the TA and each individual purchaser." The Examiner has not explained how "a suitable encryption method" or "a set of virtual keys" meets the specific recitation of the claim of a first response value calculated by the user based on a random number supplied by the content provider and moreover, there is no "first secret key possessed by the user" since the disclosure is "virtual keys known only to the TA and each individual user is not a first secret key possessed by the user.

C. Claims 3, 27, 39 and 51

The above claims limit independent claims 1, 25, 37 and 49 in reciting that the second response value is calculated by the network operator based on a random number received from the user and a second secret key possessed by the network operator and associated with the user. The Examiner concludes that

Teper '665 teaches that it is known to wherein the second service response value is calculated by the network operator based on the random number received from the user and a second secret key possessed by the network operator and associated with the user". It is requested that the Examiner clarify on the record where the alleged disclosure is upon which the Examiner has relied and further, it is not clear how lines 1-68 of columns 5 and 6 are being applied and upon which portion of those parts of Teper et al the Examiner is placing reliance thereon.

D. Claims 12 and 60

Claims 12 and 60 further limit claims 1 and 49 in reciting the user pays the content provider for the content, using a credit card, debit card or electronic transfer of funds. Claims 12 and 49 are patentable for the same reasons set forth above with respect to claim 1.

E. Claim 26

Claims 26 further limits claim 25 in reciting the first service value is calculated by the user based on a random number supplied by the network operator and a first secret key possessed by the user. As stated above, there is no calculation of service response values by Talati et al.

F. Claims 61-114

Claims 61-114 have been cancelled and it is assumed that the Examiner meant to refer to claims 115-174. See the second paragraph in the "Response to Amendment" on page 2 of the Final Rejection.

G. Claims 115-174

Claims 115-174 further limit claims 1-60 in reciting that the network is a wireless network operated by the network operator; and the user uses a mobile

station within the wireless network to receive the content at the second location. It is submitted that the Examiner has not given proper weight to the subject matter of claims 115-174 which the Examiner seems to be saying are "a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations" and further, the Examiner concludes that "the Examiner submits that the particular language does not serve as a limitation on the claim."

Each of the independent claims recites a method. The first limitation quoted above recites operation of the wireless network by the network operator and the second limitation quoted above recites a method step that "the user uses a mobile station within the wireless network to receive the content at the second location." These limitations are limitations to the method steps. The wireless network recited in the first limitation of claims 115-174 clearly refers back and further limits the network and the claimed function to receive the content at the second location is a further qualification of the second location with the wireless network as referred to in each of the independent claims.

The Examiner's premise that claims 115-174 do not further limit claims 1-60 is impermissible as a matter of law since the claims fit the definition of a dependent claim in referring back and further limiting the claim from which the dependent claim depends. Each of the claims which the Examiner suggests are not limiting is specific that the network is a wireless network which, of course, is a structural limitation to the claimed method and further it is recited that the wireless network is operated by the network operator which further qualifies the method.

Accordingly, it is submitted that the Examiner's rejection of claims 115-174 is erroneous.

Moreover, the Examiner's comments merely suggest that the subject matter of claims 115-174 is obvious without the citation of any prior art with the premise seeming to be that a hard wired telephone system of Talati et al could be replaced with a wireless system. However, such a proposed modification does not meet the subject matter of the claims since dependent claims 115-174 require far more than the replacing of hardwired telephone system with a wireless system in that each of the rejected claims is specific, as stated above, with regard to an association between the network being a wireless network operated by the network operator which is recited as an entity in the claims and moreover, the claims recite that the ordering of the content by a user occurs at a first location with the content being selected from a content provider or network operator and the transmitting of the content to the user at the second location by the network operator (claims 1, 37 and 49) or by the content provider (claims 13 and 25).

#### H. Claimed 4, 28, 40 and 52

These claims recite that the first secret key is contained in a subscriber identification module provided by the network operator and contained in a mobile station within the network which is the wireless network operated by the network operator in such a manner that the mobile user in the mobile station may not discover the value of the secret key. The Examiner relies upon United States Patent 5,991,407 (Murto). In the first place, Murto discloses the well-known A3 and A8 algorithms which are mentioned as prior art in the specification. It is submitted that the Examiner is engaging in impermissible hindsight in suggesting

the modification of Talati et al, Teper et al and Gershman et al with Murto. Moreover, Murto does not cure the deficiencies noted above with respect to Talati et al, Teper et al and Gershman et al.

I. Claims 5, 29, 41 and 51

These claims recite that the second secret key is stored in an authentication center of the telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunications service provided by the network operator. The Examiner again cites Murto but it is submitted that Murato does not teach the specific recitations of a telecom infrastructure operated by the network operator as recited and are further assigned when the user subscribes for a telecommunications service provided by the network operator. The Examiner merely concludes that such subject matter is obvious but does not point out where the Murato teaches such subject matter and it is submitted that a person of ordinary skill in the art would not consider such subject matter to be obvious.

J. Claims 6, 17, 30, 42 and 54

These claims recite that the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number. These claims are patentable for the same reasons set forth above with respect to claims 4, 28, 40 and 52.

K. Claims 7, 18, 31, 43 and 55

These claims recite that the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure and the random number. These claims are patentable for the same reason set forth above with respect to claims 5, 29, 41 and 53.

L. Claims 8, 19, 32, 44 and 56

These claims recite that the mobile station is a cellular phone with a GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with a GSM authentication capability, or a HTML capable cellular phone with a GSM authentication capability. These claims are patentable for the same reasons set forth above with respect to claims 4, 28, 40 and 52.

M. Claims 9, 20, 33, 45 and 57

These claims recite that the content is encrypted by the network operator using a cipher key calculated by an A8 algorithm based on the random number and the second secret key prior to transmitting the content to the user. The Examiner relies upon Murto, but it is submitted that Murto does not teach the aforementioned specific subject matter that the content is encrypted by a network operator as recited prior to transmission to the transmitting the content to the user.

N. Claims 10, 21, 34, 46 and 58

These claims recite decrypting the content via the mobile station using an A8 algorithm module contained in the subscriber identification module of the



mobile station to generate the cipher key based on the random number in the first key. These claims are patentable for the same reasons set forth above with respect to claims 8, 19, 32, 44 and 56.

O. Claims 11, 24, 35, 47 and 59

These claims recite the cipher key uses a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key. The Examiner concludes that "[s]ince the applicant has not disclosed that wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art" is erroneous as a matter of law. It is not the Applicants burden to demonstrate that the claimed invention solves any stated problem in a new or unexpected way since all that is required is the subject matter that the claims must not be obvious. It is submitted that the Examiner has not carried his burden with respect to these claims.

P. Claim 14

Claim 14 limits claim 13 in reciting that the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key contained in a subscriber identification module provided by the network operator and contained in a mobile station within the network which is a wireless network operated by the network operator. The Examiner has erroneously reasoned regarding claim 14. In the first place, the Examiner equates the transaction administrator (TA) of Talati et al as a service

provider when column 2, lines 65-67, clearly teach that it is an entity "which authenticates entities and validates the content of the transaction by the originator" which is not a description of a service provider. Moreover, the Examiner concludes that it would be an obvious matter of design choice, without the citation of prior art "to provide the first step of wherein the first service response is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user" and reasons that "[s]ince the applicant has not disclosed that wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art...". It is submitted that this reasoning is legally erroneous.

Moreover, the Examiner states that Talati '878 further does not disclose "the step of containing the information in a mobile station within the network which is a wireless network operated by the network operator" with the Examiner again assuming that the Applicant is required to demonstrate that a problem has been solved in a new and unexpected way. Accordingly, it is submitted that the Examiner's construction of claim 14 essentially puts the burden on the Applicant to demonstrate that the subject matter is not obvious when, in fact, it is the Examiner's burden of proof.

Q. Claim 15

Claim 15 further limits claim 13 in reciting that the second service response value and a cipher key are calculated based on the random number and a network identifier, used to access a second secret key located in an authentication center of a telecom infrastructure, received from the content provider. The Examiner concludes that since Talati discloses "suitable encryption methods and expands his description of it by detailing out additional security data such as social security numbers, drivers license numbers, etc.," that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to increase the data items as taught by Talati '878 to increase the security of the code strings used." This reasoning is legally erroneous since the Examiner has not suggested any reason why the detailed subject matter of claim 15 would be obvious other than it would be obvious to increase the data items without any demonstration that a person of ordinary skill in the art would be motivated by Talati '878 to do so which is insufficient to render claim 15 obvious.

R. Claim 16

Claim 16 further limits claim 14 in reciting that the first secret key is not accessible directly by the user or the mobile station and the value of the secret key may not be discovered by the user, but is identical to the second secret key and both the first secret key and the second secret key are assigned when the user subscribes for a communication service provided by the network operator". The Examiner concludes that Teper "teaches that it is known to wherein the first secret key is not accessible directly by the user or the mobile station and the

value of the secret key may not be discovered by the user, but is identical to the second secret key and both the first secret key and the second secret key are assigned when the user subscribes for a telecommunication service provided by the network operator". It is submitted that the Examiner has not demonstrated on the record where Teper discloses this subject matter and it is submitted that it is not disclosed therein. Moreover, the Examiner's citation that columns 5 and 6 of Teper et al "would provide the control and authentication to protect/identity specific information" does not provide a justification for what the Examiner contends Teper discloses which the Applicant challenges the Examiner to demonstrate on the record.

S. Claims 22, 36, and 48

Claims 22, 36 and 48 respectively limit claims 13, 25 and 37 in reciting that the user is billed by the network operator for the content in a telephone bill. The Examiner has relied upon the citation of United States Patent 6,029,151. However, reliance on the aforementioned patent does not render obvious the subject matter of the independent claims from which claims 22, 36 and 48 depend.

T. Claim 23

Claim 23 further limits claim 13 in reciting hashing, by the user, a price of the content, random number and a seller ID to create a hash number; computing, by the user, the first service response based on the secret key and the hash range of numbers; transmitting the user, the first service response value to the content provider; transmitting, by the content provider, the range of number, the seller ID and the price of the content and the first service response to the network

operator; computing, by the network operator, the second service response value based on the secret key, the price transmitted by the content provider and the random number; verifying, by the network operator, that the first service response value matches the second service response value; and billing the user, by the network operator, the price when the first service response value matches the second service response value in a telephone bill. It is noted that the Examiner has not referred to the teaching of using hashing in the cited references with it being requested that the Examiner state on the record where the teaching of hashing is found. The Examiner concludes as a basis for the rejection that "[e]ach of these limitations has been addressed in the previous claims and therefore, requires no further explanation and description of what was previously cited". This premise is legally erroneous since the Examiner has not pointed out anything that justifies rendering obvious the specific subject matter as recited in claim 23 which involves an interaction of steps which is not legally rendered obvious merely by a conclusion that "these limitations have been addressed in the previous claims".

## **IX. CONCLUSION**

The Examiner's rejection is premised upon (1) not giving proper consideration to the interactions of the various entities recited in the claims and (2) a classic hindsight reconstruction of the prior art. It is submitted that a person of ordinary skill in the art would not consider combining the teachings of Talati et al, Teper et al and Gershman et al except by the impermissible resort to the Applicants' specification. The Examiner has in a piecemeal manner picked and

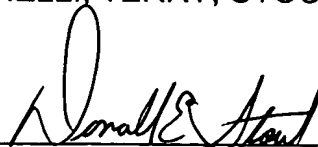
chosen from the prior art various parts to reach a conclusion that the subject matter of the independent claims is obvious. However, as the Examiner is aware, there has to be a motivation of why a person of ordinary skill in the art would combine the prior art to arrive at the claimed subject matter. The record to date does not demonstrate any such motivation and it is clear that the teachings of the specific references upon which the Examiner has relied are sufficiently disparate that a person of ordinary skill in the art would not consider their combination from an objective consideration of the prior art to achieve the subject matter of the claims. Accordingly, it is submitted that the Final Rejection of the claims is erroneous and should not be sustained.

The Appeal Brief fee of \$330 is included on the enclosed credit card payment form along with the Request for Oral Hearing fee of \$290. An Oral Hearing is hereby requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (Case No. 0171.37999X00) and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



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**CLAIMS ON APPEAL**

1. A method of ordering, paying for and delivering content, comprising:  
ordering and paying for the content by a user at a first location, the content being selected from a content provider;  
transmitting a first service response value calculated by the user to the content provider;  
calculating a second service response value by a network operator when the user at a second location, different from the first location, requests the content from the network operator;  
verifying, by the network operator contacting the content provider, that the first service response value matches the second service response value; and  
transmitting the content to the user at the second location by the network operator when the first service response value matches the second service response value, wherein:  
at least one of ordering and paying for the content, transmitting the first service response value, and transmitting the content is done by a network.
2. The method recited in claim 1, wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user.

3. The method recited in claim 1, wherein the second service response value is calculated by the network operator based on a random number received from the user and a second secret key possessed by the network operator and associated with the user.

4. The method recited in claim 2, wherein the first secret key is contained in a subscriber identification module provided by the network operator and contained in a mobile station within the network which is a wireless network operated by the network operator in such a manner that the mobile user and the mobile station may not discover the value of the secret key.

5. The method recited in claim 3, wherein the second secret key is stored in an authentication center of a telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator.

6. The method recited in claim 4, wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number.

7. The method recited in claim 5, wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of



the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number.

8. The method recited in claim 6, wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability.

9. The method recited in claim 7, wherein the content is encrypted by the network operator using a cipher key, calculated by an A8 algorithm module based on the random number and the second secret key, prior to transmitting the content to the user.

10. The method recited in claim 8, further comprising:

decrypting the content by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate the cipher key based on the random number and the first secret key.

11. The method recited in claim 9, wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key.

12. The method recited in claim 1, wherein the user pays the content provider for the content, using a credit card, debit card, or electronic transferral of funds.

13. A method of ordering, paying for and delivering content, comprising:  
ordering the content having a content ID by a user at a first location, the content being selected from a content provider;

transmitting a first service response value, a network identifier, and a cipher key by the user to the content provider;

transmitting the first service response value, the network identifier, and a random number to a network operator by the content provider;

calculating a second service response value and a cipher key by the network operator and determining if the first service response value matches the second service response value; and

transmitting the content to the user at a second location, different from the first location, when the first service response value matches the second service response value, by the content provider, wherein:

at least one of ordering the content, transmitting the first service response value, and transmitting the content is done by a network.

14. The method recited in claim 13, wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key contained in a subscriber identification module

provided by the network operator and contained in a mobile station within the network which is a wireless network operated by the network operator.

15. The method recited in claim 13, wherein the second service response value and a cipher key are calculated based on the random number, and a network identifier, used to access a second secret key located in an authentication center of a telecom infrastructure, received from the content provider.

16. The method recited in claim 14, wherein the first secret key is not accessible directly by the user or the mobile station and the value of the secret key may not be discovered by the user, but is identical to the second secret key and both the first secret key and the second secret key are assigned when the user subscribes for a telecommunication service provided by the network operator.

17. The method recited in claim 16, wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number.

18. The method recited in claim 15, wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number.

19. The method recited in claim 17, wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability.

20. The method recited in claim 18, wherein the content is encrypted by the network operator using the cipher key, calculated by an A8 algorithm module based on the random number and the second secret key, prior to transmitting the content to the user.

21. The method recited in claim 19, further comprising:

decrypting the content by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate a cipher key based on the random number and the first secret key.

22. The method recited in claim 13, wherein the user is billed by the network operator for the content in a telephone bill.

23. The method recited in claim 13, further comprising:

hashing, by the user, a price of the content, the random number and a seller ID to create a hashed number;

computing, by the user, the first service response value based on the secret key and the hashed random number;

transmitting, by the user, the first service response value to the content provider;

transmitting, by the content provider, the random number, the seller ID the price of the content and the first service response to the network operator;

computing, by the network operator, the second service response value based on the secret key, the price transmitted by the content provider and the random number;

verifying, by the network operator that the first service response value matches the second service response value; and

billing the user, by the network operator, the price when the first service response value matches the second service response value in a telephone bill.

24. The method recited in claim 20, wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key.

25. A method of ordering, paying for and delivering content, comprising:

ordering the content from a network operator, having a content ID selected by a user at a first location;

transmitting a first service response value calculated by the user to the network operator;

calculating a second service response value and a cipher key by the network operator and determining if the first service response value matches the second service response value;

transmitting the content ID, and a cipher key to a content provider; and

transmitting the content to the user at a second location, different from the first location, by the content provider when requested by the user, wherein:

at least one of ordering the content, transmitting the first service response value, and transmitting the content is done by a network.

26. The method recited in claim 25, wherein the first service response value is calculated by the user based on a random number supplied by the network operator and a first secret key possessed by the user.

27. The method recited in claim 25, wherein the second service response value is calculated by the network operator based on the random number and a second secret key possessed by the network operator and associated with the user.

28. The method recited in claim 26, wherein the first secret key is contained in a subscriber identification module provided by the network operator and contained in a mobile station within the network which is a wireless network operated by the network operator in such a manner that the user and the mobile station may not discover the value of the secret key.

29. The method recited in claim 27, wherein the second secret key is stored in an authentication center of a telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator.

30. The method recited in claim 28, wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number.

31. The method recited in claim 29, wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number.

32. The method recited in claim 30, wherein the station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability.

33. The method recited in claim 31, wherein the content is encrypted by the content provider using a cipher key, calculated by an A8 algorithm module based on

the random number and the second secret key and supplied by the network operator, prior to transmitting the content to the user.

34. The method recited in claim 32, further comprising:

decrypting the content received by from the content provider by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate a cipher key based on the random number and the first secret key.

35. The method recited in claim 33, wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key.

36. The method recited in claim 25, wherein the user is billed by the network operator for the content in a telephone bill.

37. A method of ordering, paying for and delivering content, comprising:

ordering the content, having a content ID, by a user at a first location, the content being selected from a network operator;

transmitting a first service response value calculated by the user to the network operator;



calculating a second service response value and a cipher key by the network operator and determining if the first service response value matches the second service response value; and

transmitting the content to the user at a second location, different from the first location, by the network operator when requested by the user wherein:

at least one of ordering the content, transmitting the first service response value, and transmitting the content is done by a network.

38. The method recited in claim 37, wherein the first service response value is calculated by the user based on a random number supplied by the network operator and a first secret key possessed by the user.

39. The method recited in claim 37, wherein the second service response value is calculated by the network operator based on a random number and a second secret key possessed by the network operator and associated with the user.

40. The method recited in claim 38, wherein the first secret key is contained in a subscriber identification module provided by the network operator and contained in a mobile station within the network which is a wireless network operated by the network operator in such a manner that the user and the mobile station may not discover the value of the secret key.

41. The method recited in claim 39, wherein the second secret key is stored in an authentication center of a telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator.

42. The method recited in claim 40, wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number.

43. The method recited in claim 41, wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number.

44. The method recited in claim 42, wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability.

45. The method recited in claim 43, wherein the content is encrypted by the network operator using a cipher key, calculated by an A8 algorithm module based on

the random number and the second secret key and supplied by the network operator, prior to transmitting the content to the user.

46. The method recited in claim 44, further comprising:

decrypting the content received by from the network operator by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate a cipher key based on the random number and the first secret key.

47. The method recited in claim 45, wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key.

48. The method recited in claim 37, wherein the user is billed by the network operator for the content in a telephone bill.

49. A method of ordering, paying for and delivering contents, comprising:

ordering and paying for the contents by a user at a first location, the content being selected from a content provider;

transmitting a plurality of first service response values calculated by the user to the content provider;

calculating a plurality of second service response values by a network operator when the user at a second location, different from the first location, requests one of the contents from the network operator;

verifying, by the network operator contacting the content provider, that one of the plurality of first service response values associated with the requested contents matches one of the plurality of second service response values associated with the requested contents; and

transmitting one of the requested contents to the user at a second location different from the first location, by the network operator when the one of the plurality of first service response values matches the one of the plurality of second service response values, wherein:

at least one of ordering and paying for the plurality of contents, transmitting the plurality of first service response values, and transmitting the requested content is done by a network.

50. The method recited in claim 49, wherein the plurality of first service response values are calculated by the user based on a plurality of random numbers supplied by the content provider and a first secret key possessed by the user.

51. The method recited in claim 49, wherein the plurality of second service response values are calculated by the network operator based on a plurality of random numbers received from the user and a second secret key possessed by the network operator and associated with the user.

52. The method recited in claim 50, wherein the first secret key is contained in a subscriber identification module provided by the network operator and contained in a mobile station within the network which is a wireless network operated by the network operator in such a manner that the user and the station may not discover the value of the secret key.

53. The method recited in claim 51, wherein the second secret key is stored in an authentication center of a telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator.

54. The method recited in claim 52, wherein the plurality of first service response values are calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the plurality of random numbers.

55. The method recited in claim 53, wherein and the plurality of second service response values are calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure based on the second secret key, contained in the authentication center of the telecom infrastructure, and the plurality of random numbers.

56. The method recited in claim 54, wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability.

57. The method recited in claim 55, wherein the requested content is encrypted by the network operator using a cipher key, calculated by an A8 algorithm module based on a random number of the plurality of random numbers and the second secret key, prior to transmitting the requested to the user.

58. The method recited in claim 56, further comprising:

decrypting the requested content by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate a cipher key based on one random number of the plurality of random numbers and the first secret key.

59. The method recited in claim 57, wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key.

60. The method recited in claim 49, wherein the user pays the content provider for the plurality of contents, using a credit card, debit card, or electronic transferral of funds.

Claims 61-114 - (canceled)

115. A method in accordance with claim 1 wherein:  
the network is a wireless network operated by the network operator;  
and  
the user uses a mobile station within the wireless network to receive the content at the second location.

116. A method in accordance with claim 2 wherein:  
the network is a wireless network operated by the network operator;  
and  
the user uses a mobile station within the wireless network to receive the content at the second location.

117. A method in accordance with claim 3 wherein:  
the network is a wireless network operated by the network operator;  
and  
the user uses the mobile station within the wireless network to receive the content at the second location.

118. A method in accordance with claim 4 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

119. A method in accordance with claim 5 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

120. A method in accordance with claim 6 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

121. A method in accordance with claim 7 wherein:

the network is a wireless network operated by the network operator;

and



the user uses a mobile station within the wireless network to receive the content at the second location.

122. A method in accordance with claim 8 wherein:

the network is a wireless network operated by the network operator;  
and

the user uses the mobile station within the wireless network to receive the content at the second location.

123. A method in accordance with claim 9 wherein:

the network is a wireless network operated by the network operator;  
and

the user uses a mobile station within the wireless network to receive the content at the second location.

124. A method in accordance with claim 10 wherein:

the network is a wireless network operated by the network operator;  
and

the user uses the mobile station within the wireless network to receive the content at the second location.

125. A method in accordance with claim 11 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

126. A method in accordance with claim 12 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

127. A method in accordance with claim 13 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

128. A method in accordance with claim 14 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

129. A method in accordance with claim 15 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

130. A method in accordance with claim 16 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

131. A method in accordance with claim 17 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

132. A method in accordance with claim 18 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

133. A method in accordance with claim 19 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

134. A method in accordance with claim 20 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

135. A method in accordance with claim 21 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

136. A method in accordance with claim 22 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

137. A method in accordance with claim 23 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

138. A method in accordance with claim 24 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

139. A method in accordance with claim 25 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

140. A method in accordance with claim 26 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

141. A method in accordance with claim 27 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

142. A method in accordance with claim 28 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

143. A method in accordance with claim 29 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

144. A method in accordance with claim 30 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

145. A method in accordance with claim 31 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

146. A method in accordance with claim 32 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.



147. A method in accordance with claim 33 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

148. A method in accordance with claim 34 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

149. A method in accordance with claim 35 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

150. A method in accordance with claim 36 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

151. A method in accordance with claim 37 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

152. A method in accordance with claim 38 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

153. A method in accordance with claim 39 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

154. A method in accordance with claim 40 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

155. A method in accordance with claim 41 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

156. A method in accordance with claim 42 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

157. A method in accordance with claim 43 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

158. A method in accordance with claim 44 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

159. A method in accordance with claim 45 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

160. A method in accordance with claim 46 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

161. A method in accordance with claim 47 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

162. A method in accordance with claim 48 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

163. A method in accordance with claim 49 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

164. A method in accordance with claim 50 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

165. A method in accordance with claim 51 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

166. A method in accordance with claim 52 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

167. A method in accordance with claim 53 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

168. A method in accordance with claim 54 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

169. A method in accordance with claim 55 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

170. A method in accordance with claim 56 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.



171. A method in accordance with claim 57 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

172. A method in accordance with claim 58 wherein:

the network is a wireless network operated by the network operator;

and

the user uses the mobile station within the wireless network to receive the content at the second location.

173. A method in accordance with claim 59 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.

174. A method in accordance with claim 60 wherein:

the network is a wireless network operated by the network operator;

and

the user uses a mobile station within the wireless network to receive the content at the second location.